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CAESAR'S ACCOUNT OF THE ANIMALS IN THE HERCYNIAN FOREST (*De Bello Gallico*, VI, 25-28).¹

In his interesting comparison of the customs of the Gauls and the Germans, in Book VI of the Gallic War, Caesar has occasion to speak of the Hercynian Forest. The extent of this forest was so great, he tells us, that no one from the west part of Germany had ever gone to the eastern limit. It followed the line of the Danube, and seems to have corresponded, in general, with the mountains and forests of southern Germany, from the Schwarzwald to the Carpathian chain. From the forest itself Caesar passes, in chapter xxv, to the strange animals found in it, to which the three following chapters, xxvi-xxviii are devoted. The description is full of mistakes, and contains so much of the marvelous, that Henry Meusel, the latest critical editor of the Gallic War, rejects the three chapters from the text as an interpolation inserted by some credulous scribe.

Caesar as a rule is sober-minded, presenting only essential facts, in a style singularly free from embellishment or affectation. It is the purpose of this paper to inquire whether the three chapters contain anything that a man of the highest intelligence and sobriety of judgment, writing at the end of the Roman Republic, might not have included in such a description.

We must first observe that the three chapters professedly give information at second hand. This is clear from the introductory statement in chapter xxv: *multaque in ea (silva) genera ferarum nasci constat, quae reliquis in locis visa non sint*. It must further be noticed that zöology had not, in Caesar's time, become a science resting on exact observation. Aristotle had indeed recorded the habits of animals, and classified them in accordance with the laws of a rude physiology, but he had no followers; the sciences, of which he laid the basis, were checked by extravagant legends and fables. That Aesop's fox should talk with a crane,

¹ Paper read at the Classical Conference, Ann Arbor, Michigan, March 30, 1900, by Grace Griffith Begle.

or that a philosophic discussion should occupy the country rat when visited by an acquaintance from the town, is not to be wondered at when sober history abounds in similar examples. According to Livy, under the consulate of Gnaeus Domitius and Lucius Quintius an ox threw Rome into terror by the words : *Cave tibi, Roma!* When Lepidus and Catulus were consuls, we are told, a cock, in the farmyard of one Galerius, spoke like a human being, and Pliny¹ meditating on this fact gravely remarks that this was the only instance of the kind that he knew of.

The same Pliny² tells a marvelous story of a dolphin. A boy was accustomed every day on his way to school to cross the Lucrine lake ; a dolphin observing this would approach the shore, take the child on its back and safely deposit the burden on the opposite side. This happened for several years, until the boy fell ill and died. The dolphin continued to come to the spot, and at last died of sorrow.

Woods, mountains, and seas were thought to abound in abnormal forms, such as dragons, winged horses and griffins. Even the Christian writers, Cyprian and Jerome, seem to have admitted the existence of centaurs, believing them to be fallen angels, condemned to stroll through dismal forests until the day of judgment. A phoenix is described by Tacitus³ as revisiting Egypt in 34 A.D., after a disappearance for a series of ages. "The narrative has no doubt a mixture of fable," he says, "but that the phoenix, from time to time, appears in Egypt, seems to be a fact sufficiently ascertained."

Not to speak of the prevalence of absurd beliefs among the ignorant down to the present time, the early attempts made by our own writers to explain the presence of the huge bones found in various parts of the United States, when viewed by the light of present knowledge, are as amusing, and unscientific in spirit, as the theories of the ancients. Thomas Jefferson, in speaking of the mastodon, says much that borders on the marvelous ; and most of the writers who followed Jefferson, in discussing the nature of the mammoth, regarded the creature as a gigantic

¹ *Natural History*, X, 21, 50.

² *Natural History*, IX, 8.

³ *Ann.*, VI, 28.

flesh-eater, exhausting all the adjectives of the language to describe his fierceness. Some of them by putting together bones of many different animals concocted gruesome monsters. A certain Thomas Ashe in 1801 described one thus: "With the agility of the tiger, with a body of unequaled magnitude, the monster must have been the terror of the forest and man. In fine, huge as the frowning precipice, cruel as the bloody panther, swift as the descending eagle, must have been this tremendous animal, when clothed with flesh and animated with principles of life. From this review of these majestic remains, it must appear that the creature to whom they belonged was nearly sixty feet long and twenty-five feet high." Whittier's poem on the "Double-headed Snake of Newbury" was suggested by these lines of Rev. Christopher Toppan to Cotton Mather: "I made diligent inquiry at your command, and I am assured it had really two heads, one at each end, two mouths, two stings, or tongues."

These illustrations may serve to show how, in the centuries before the study of animals was put upon a scientific basis, all manner of beliefs regarding them were held by the most intelligent men. We may now pass to the detailed account of the animals mentioned in the chapters under discussion.

The first description, in chapter xxvi, is of a large animal somewhat like the deer in form; from its forehead midway between the ears a single horn rises, higher and straighter than the horns of any animal known to us. From the end of this horn, branches, which are like the palms of the hand when the fingers are extended, are spread out. According to the view of most naturalists, Caesar refers here to the reindeer, which once lived much farther south than now, and retreated north on the removal of the forests. Bones and antlers, which have been found in trees and lumber, prove that the animal was found in ancient times as far south as modern Switzerland. While it is open to question whether, on account of the mildness of the climate, the reindeer thrived in Germany at the time of Caesar, it is not improbable that a wandering reindeer might have been seen in the winter, at the eastern end of the forest. In regard

to the words *bos cervi figura* Buffon remarks that it ought not to surprise anyone that Caesar should give the name *bos* to an animal so different from the ox, since the Romans applied this term to any large unfamiliar animal which had cloven hoofs, horns, and lived on grass.

Several suggestions have been made to show how Caesar fell into the error of attributing but one horn to the reindeer. Perhaps the specimen described had lost a horn; as both horns run parallel to each other, if seen from the side, the two would appear as one; again, the expression may refer to the long projection from which both branches spring instead of growing independently like the horns of an ox.

Pliny¹ speaks of the *tarandrus*, meaning the reindeer, as an animal of the size of the ox. "Its head," he says, "is larger than that of the stag, and not very unlike it; its horns are branched, its hoof cloven, and its hair as long as that of the bear. Its hide is of such extreme hardness that it is used for making breast-plates. When it is frightened this animal reflects the color of all the trees, shrubs, and flowers in the spot where it is concealed, hence it is that it is so rarely captured." Cuvier remarks that this description was probably derived from the imperfect account which the ancients possessed of the reindeer; the hair of this animal becomes nearly white in winter, and in summer a brown or gray color.

The marvelous character of our narrative is further shown in the description of the elk. This animal, we are told, in form, and in the mottled appearance of its skin, resembled the goat, but it was much larger, with blunt antlers, and legs that had no joints. These elks never lay down to rest, and if thrown down by any accident, they could not raise themselves up. They leaned against trees while they slept, and the huntsmen, observing their habit, would make a trap for them by cutting into the tree; but only so far that it might still retain the appearance of standing firmly. Of course when the animal leaned against a tree thus weakened, it would fall with his weight, and he was left unable to rise. Such evidently was Shakespeare's idea when he wrote

¹ *Natural History*, VIII, 34.

("Julius Caesar," Act II, Scene I), "he loves to hear that unicorns may be betrayed with trees."

The belief was prevalent for many centuries that elephants were not able to bend their legs nor lie down, and as the joints of the elk's legs were quite firm and stiff, men very likely attributed to them that part of the fable about the elephant. Moreover, the inconveniences attributed to the elk by Caesar's narrative are said to be ascribed to it by some people in Germany today; and there is a current etymology which connects the word *Elen*, "elk," with *elend*, "wretched."

The delusion in regard to the elephant was supported by the fact that the elephant often sleeps standing, its huge body leaning against a tree or rock. Mr. William Brayley, a naturalist of the London Institution, writes: "Station to it is rest, except when greatly fatigued, or in great weakness from disease. From the construction of all the joints in its legs, and especially from that of the knee-joints, the elephant, when standing still, rests, as it were, upon four pillars, with scarcely any need of muscular exertion." He says that an elephant which died in the menagerie of the Jardin des Plantes at Paris was observed never to lie down, even in his last illness, until immediately before his death.

It is stated by Mr. Corse Scott,¹ under whose direction the elephant hunters in Bengal were placed, that "elephants, particularly goondahs, which are large male animals, that have strayed from the woods and the herd, have been known to stand twelve months at their pickets without lying down to sleep, though they sometimes take a short nap standing."

The popular belief concerning the elephant was, according to Professor Schlegel,² first delivered or first recorded from tradition by Ctesias, the Cnidian, in 380 B. C., so that it was already an old error at the time Caesar was writing of the elk. The absurdity respecting the elephant's posture in sleep, and the consequent mode of capturing him is also, Schlegel says, derived from Ctesias. Aristotle refutes the statements of Ctesias where

¹ "Manners, Habits, and Natural History of the Elephant," *Philosophical Transactions*, 1799, p. 44.

² "History of the Elephant and Sphinx," *Classical Journal*, XXXI.

he says¹ that "the elephant is not formed as some have said, but is able to sit down and bend his legs; from his great weight, however, he is unable to bend them on both sides at once; he leans either to the right side or to the left, and sleeps in this position, but his hind legs are bent like a man's."

Steevens, in his notes on Shakespeare, tells us that in a curious specimen of early natural history, "The Dialogues of Creatures Moralized," published early in the sixteenth century, mention is made of the "elefant that boweth not the knees." In the play of "All Fools" by George Chapman, published in 1605 (Act V, Scene I), is the passage: "I hope you are no elephant, you have joints." Shakespeare, in his *Troilus and Cressida*, makes Ulysses say (Act II, Scene III): "The elephant hath joints, but none for courtesy. His legs are legs for necessity, not for flexure." In "All's Lost by Lust," a play by William Rowley, written 1633, a woman is said to be "stubborn as an elephant's leg"—no bending in her.

"Bestiary," an English version, made in the thirteenth century, of a Latin physiologus, gives a description of the elephant which reminds us of Caesar's elk. It may be translated as follows:

There are elephants in the land of India,
 In body like burly mountains.
 They wade out into the water
 In order that they may not fall down.
 That is most in their thought,
 For they have no joints
 That they can rise with;
 How this deer resteth him
 When he walketh wide,
 Harketh how it telleth here,
 For he is all unwieldy.
 A tree he seeketh certainly
 That strong and steadfast is,
 And leaneth himself
 Confidently against it
 When he is of walk, weary;
 The hunter hath beheld this,
 Who wishes to entrap him

¹*History of Animals*, II, 1.

Where his best resort is,
To do his will.
He saweth the tree,
And propeth it beneath
In the wise that he can best,
Concealeth it well
That he is not aware of it,
When he maketh return thereto ;
Sits alone himself
Beholds whether his contrivance
At all avail him.
Then cometh this elephant unwieldy
And leaneth him upon his side,
Sleepeth by the tree in the shadow,
And so both fall together.

In his conclusion the writer finds the analogue of the elephant in Adam, our first father, who fell by means of a tree.

Sir Thomas Browne, author of *Vulgar Errors*, takes up in chap. 1 of the third book, as the first common error, "That an elephant hath no joints." He wonders that men do strangely forget what is related by Suetonius in the lives of Nero and Galba, that elephants have been instructed to walk on ropes, in public shows, before the people: which is not easily performed by man, and requireth not only a broad foot, but a pliable flexure of joints; or that they call not to mind that memorable show of Germanicus, wherein twelve elephants danced unto the sound of music; lastly, he says, they consult not experience whereof not many years past we have had the advantage in England, by an elephant shown in many parts thereof, not only in the posture of standing, but kneeling, and lying down. The first edition of *Vulgar Errors* was published 1646, and, although Sir Thomas Browne writes that the opinion in regard to the elephant having no joints is at present well suppressed, he expresses a fear that it will revive again, citing a case in Italy, where, notwithstanding the opportunity of witnessing the habits of the animal afforded by an elephant, sent to Leo X by Emanuel, king of Portugal, "the error is still alive and epidemical, as with us."

Mr. Brayley, the naturalist whom I mentioned before, writing in 1836, says: "It remains a 'vulgar error' among the

uneducated classes even to the present day. It has long been the custom for the exhibitors of itinerant collections of wild animals, when showing the elephant, to mention the story of its having no joints, and its consequent inability to rise; they never fail to think it necessary to demonstrate its untruth by causing the animal to bend one of its forelegs, and kneel also, but I never saw this done without observing that it was witnessed with astonishment, and almost incredulity, by several persons present, whether the exhibition had been in London. or in a provincial town."

The last animal mentioned is the *urus*, the German aurochs, or wild ox. This was a little below the elephant in size, our description says, and like the bull in color and shape. As the *urus* is the largest of existing quadrupeds of the European continent, Caesar's comparison of it with the elephant is not incorrect. The strength and speed of these animals was very great, a fact which Pliny¹ also mentions, and they were so fierce that even when taken very young they could not be tamed. Young men hardened themselves in hunting them, and captured and killed them by means of pitfalls, for he who could produce the greatest number of their horns in public was considered a mighty hunter. The horns which were thus obtained they bound at the rim of the large end with silver, and used for cups at their most sumptuous banquets.

The aurochs still exists, although in small numbers, in the forest of Lithuania, where it is saved from immediate extinction by the protection of the emperor of Russia. Up to the time of Charles the Great it was hunted in the Hartz Mountains.

Notwithstanding the incredible details, the language of the three chapters is throughout Caesarian. There is nothing in any manuscript to suggest that they were a late addition. From a literary point of view, they fit in well with what precedes, and what follows. Thus, so far as concerns language and style, the presumption is in favor of their authenticity, unless it can be proved that the matter is inconsistent with Caesar's information

¹ *Natural History*, VIII, 15.

and belief. It seems to me that the evidence presented is sufficient to indicate that unless Caesar surpassed his contemporaries in zoölogical knowledge, he may well have believed what we find written in the chapters under discussion. Meusel's rejection of the chapters as spurious is without sufficient justification, and according to our present light we must consider them as the work of Caesar.